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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,243	09/02/2003	Hiroyuki Ishida	Q77263	1860
23373	7590	09/09/2004	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			ALEMU, EPHREM	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/652,243

Applicant(s)

ISHIDA ET AL.

Examiner

Ephrem Alemu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9-02-03 & 3-31-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. **It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.**

The abstract of the disclosure is objected to because the abstract contains phrases, which can be implied, such as, "The invention includes" in line 1. Deleting "The invention includes" in line 1 of the abstract will overcome this objection. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claim 7 is objected to because of the following informalities: In claim 7, line 8, insert --unit-- after "forming" to include the inadvertently omitted word. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Neumann et al. (US 5,975,730).

Re claim 7, Neumann discloses a headlamp (Fig. 1), comprising:

a plurality of lighting units (20, 40, 60, 61, 70, 90) operable to form a light distribution pattern (i.e., low beam), the plurality of lighting units comprising:

a cutoff line (i.e. light-dark boundary 54, 56, 85) forming unit (20) operable to carry out a light irradiation pattern (Figs. 4, 5; abstract; Col. 3, line 55- Col. 4, line 27; Col. 5, line 49- Col. 6, line 21);

a hot zone (i.e., concentrated or focused light beam 72) forming unit (70) operable to carry out a light irradiation form distribution form a hot zone (i.e., concentrated or focused light beam 72) of the light distribution pattern (Figs. 1, 4, 5; abstract; Col. 3, line 55- Col. 4, line 27; Col. 5, lines 17-48); and

a diffusion region forming unit (i.e., headlight sub unit 60, 61) operable to carry out a light irradiation to form a diffusion region (i.e., regions 62, 63) of the light distribution pattern Figs. 1, 4; Col. 4, lines 27-63).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann et al. (US 5,975,730) in view of Du et al. (US Pub. No. 2004/0042212).

Re claim 1, Neumann discloses a headlamp (Fig. 1), comprising:

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a plurality of lighting units (20, 40, 60, 61, 70, 90) using incandescent bulbs or discharge lamp as a light source operable to form a light distribution pattern for a low beam (see abstract; Figs. 1-5; Col. 6, line 66- Col. 7, lines 7), the plurality of lighting units (20, 40, 60, 61, 70, 90) comprising:

a cutoff line (i.e. light-dark boundary 54, 56, 85) forming unit (20) operable to carry out a light irradiation pattern of a low beam (Figs. 4, 5; abstract; Col. 3, line 55- Col. 4, line 27; Col. 5, line 49- Col. 6, line 21);

a hot zone (i.e., concentrated or focused light beam 72) forming unit (70) operable to carry out a light irradiation form distribution form a hot zone (i.e., concentrated or focused light beam 72) of the light distribution pattern of a low beam (Figs. 1, 4, 5; abstract; Col. 3, line 55- Col. 4, line 27; Col. 5, lines 17-48); and

a diffusion region forming unit (i.e., headlight subunits 60, 61) operable to carry out a light irradiation to form a diffusion region (i.e., regions 62, 63) of the light distribution pattern of a low beam (Figs. 1, 4; Col. 4, lines 27-63).

Neumann does not disclose the plurality of lighting units using semiconductor light emitting elements as light source.

However, Du discloses a light source including a light emitting semiconductor device for producing substantially plane wave light beam that is suitable for vehicle headlight for the purpose of improving a reliability and catastrophic failure of a headlight caused by failure of incandescent halogen or discharge lamps (Fig. 1; abstract; Page 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the light source of Neumann's with light emitting semiconductor device for the purpose of improving a reliability and catastrophic failure

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of a headlight caused by failure of incandescent halogen or discharge lamps as taught by Du.

Re claims 2-5, Neumann discloses the cutoff line (i.e. light-dark boundary 54, 56, 85) forming unit (20); the hot zone (i.e., concentrated or focused light beam 72) forming unit (70) are constructed according to the projection principle (Fig. 2; abstract); and the diffusion region forming unit (i.e., headlight subunits 60, 61) being constructed according to the reflection principle (Fig. 3; abstract). Therefore, given Neumann's modified by Du's headlamp as discussed above in claim 1, the cutoff line (i.e. light-dark boundary 54, 56, 85) forming unit (20); the hot zone (i.e., concentrated or focused light beam 72) forming unit (70) being a projection type as claimed in claims 2, 3 and 5; and the diffusion region forming unit (i.e., headlight subunits 60, 61) being a reflection type as claimed in claims 4 and 5, would have been obvious for the purpose of improving the visibility using the low beam.

Re claim 6, given Neumann's modified by Du's headlamp as discussed above in claim 5, arranging the cutoff line (i.e. light-dark boundary 54, 56, 85) forming unit (20); the hot zone (i.e., concentrated or focused light beam 72) forming unit (70) and the diffusion region forming unit (i.e., headlight subunits 60, 61) as claimed in claim 6, would have been well in the skill of an artisan since Neumann's modified by Du's headlight discloses the claimed subject matter as discussed above in claim 5.

Re claim 8, Neumann substantially discloses the claimed invention as discussed above in claim 7, except the plurality of lighting units including semiconductor light emitting elements as light source.

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However, Du discloses a light source including a light emitting semiconductor device for producing substantially plane wave light beam that is suitable for vehicle headlight for the purpose of improving a reliability and catastrophic failure of a headlight caused by failure of incandescent halogen or discharge lamps (Fig. 1; abstract; Page 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the light source of Neumann's with light emitting semiconductor device for the purpose of improving the reliability and catastrophic failure of a headlight caused by failure of incandescent halogen or discharge lamps as taught by Du.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Natsume (US 6,619,825); Thominet (US 6,565,247); Hashigaya (US 6,511,215); Harbers et al. (US 6,406,172); and Turnbull et al. (US 5,803,579); also teach similar inventive subject matter.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F Flex hours.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EA

9-03-04


Don Wong
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